$$\Pi = \Pi\,(u,\ v,\ w),$$
$$T = T\,(\dot{w}). \qquad (1)$$

The shell is considered sloping, while the inertia in the directions lying on the shell surface are disregarded. The ribs represent frames resistant to stretching, bending and twisting in its plane. The displacements of the center surface are sought in the form of series, the terms of which satisfy the support conditions

$$u = \sum_{j=1}^{N} U_j(t) \cos\frac{j\pi x}{l} \cos\frac{ky}{R};\quad v = \sum^{N} V_j(t) \sin\frac{j\pi x}{l} \sin\frac{ky}{R};$$
$$w = \sum_{j=1}^{N} W_j(t) \sin\frac{j\pi x}{l} \cos\frac{ky}{R} \qquad (2)$$

(l, R — length and radius of shell)

An expression is derived which corresponds to the two-dimensional stationary theory or a linear variant of the piston theory. The solution of the movement equations is sought in the form of harmonic vibrations, assuming the frequency of the vibrations to be complex. The

authors then determined the critical parameter α, above which there exist Ω values corresponding to unstable movements ($\mathrm{Im}\,\Omega < 0$). They consider both an unreinforced shell and a shell reinforced by a single rib. It is pointed out that, while two terms are sufficient for an approximate solution and four terms of the series yield a practically exact result for long shells, for short shells, where a two-term approximation involves consideration of two forms with frequencies located in a very dense spectral region, the effect of non-retained forms may be quite substantial. Thus, the principal special feature in the computation of short shells is the need to consider a large number of terms which leads to the calculation of a high-order determinant

$$|a_{jn}| = 0$$

$$a_{jn} = \begin{cases} \Omega_j^2 - \Omega^2 & \text{when } n = j, \\ [1 - (-1)^{j+n}] \dfrac{jn}{j^2 - n^2} a & \text{when } n \neq j. \end{cases} \qquad (3)$$

The calculation of this determinant was programmed and carried out on a high-speed discrete-operation electronic computer at the Vy*chislitel'ny*y tsentr Sibirskogo otdeleniya AN SSSR (Computer Center of the Siberian Branch of the AN SSSR). Two methods were employed. The first consisted of the direct determination of the frequencies Ω for given α.

ACCESSION NR: AT4039431

By disregarding α, it is possible to assess the variation of frequencies in the stream and to find α_{cr}. In view of the fact that it involves a great deal of effort, this method was used for the computation of only a few examples. The other method consists of the determination of α_{cr} and the corresponding value Ω_{cr} by sequential approximations. Those terms which correspond to a two-term approximation are discriminated in the determinant. In all other terms, certain $\lambda^{(0)}$ and $\Omega^{(0)}$ are assigned and $\alpha^{(1)}$ and $\Omega^{(1)}$ are found. The process is continued until the assigned and derived values coincide with the required degree of accuracy. Out of several hundred machine runs, it was impossible to carry the process to its end in only approximately ten cases. The effectiveness of the method depends, obviously, on the proper selection of $\alpha^{(0)}$ and $\Omega^{(0)}$. A combination of both methods permits the total solution of the problem. Calculation results, presented in the form of curves and surfaces drawn through computed α_{cr}, indicate that for a short shell the second minimum α_{cr} will be the smallest. For a shell with a radius-to-thickness ratio of 500 the first minimum will be the smallest for lengths greater than 1.3 radii. In order to obtain a satisfactory description of the form of the vibrations of a shell reinforced by a rib, the consideration of a large number of terms in the displacement expansion series is absolutely necessary. The authors note that, unfortunately, the use of an effective method of sequential approximations in this connection is difficult since it is not clear which forms and frequencies are to be considered

Card 4/5

ACCESSION NR: AT4039431

basic. Calculations by the direct method of frequency determination in the stream of a shell with a weightless rib having high rigidity against stretching and zero torsional rigidity indicate the following. 1. Some forms of instability have an upper and lower value ω_{cr} at which instability is replaced by stability. 2. An increase in the flexional rigidity of the rib is not always accompanied by increased critical velocity. 3. Damping must be considered in the case of rib rigidity values corresponding to low frequencies. For experimental purposes a model was used in the form of a quarter-cylinder with internally tapered edges and a machined cavity, over which was fastened a panel with a radius-to-thickness ratio of 2250. The stretching and compression of the panel were controlled from a separate position. As the longitudinal forces were varied in the panel the following characteristic stages were observed: (1) negligible local vibrations; (2) vibrations of the traveling-wave type, encompassing a large portion of the panel (the generation of these vibrations is taken to be the commencement of auto-oscillations); (3) intensive oscillation of the entire panel accompanied by deep nonlinear strains; (4) static loss of stability. The occurrence of each individual stage is said to be probabilistic in character. Orig. art. has: 2 figures and 10 formulas.

ASSOCIATION: none

SUBMITTED: 00	DATE ACQ: 14May64	ENCL: 00
SUB CODE: AS	NO REF SOV: 002	OTHER: 000

Card 5/5

L 26337-65 EWT(m)/EWP(t)/EWP(b) IJP(c) RDW/JD

ACCESSION NR: AP4040760 Z/0017/64/053/006/0316/0321

AUTHOR: Sanderova, Vera (Shanderova, V.) (Graduate physicist, Candidate of sciences); Kucera, Ludvik (Kuchera, L.); Frank, Bohuslav

TITLE: Comparison of the characteristic parameters of selenium rectifier elements of current production

SOURCE: Elektrotechnicky obzor, v. 53, no. 6, 1964, 316-321

TOPIC TAGS: characteristic parameter, selenium rectifier element, selenium rectifier plate, through flow direction, barrier layer, ohmic resistance, threshold voltage, cutoff voltage, selenium crystallization, load current density

ABSTRACT: The article gives an evaluation of the qualitative development of selenium rectifier elements by comparing the parameters of selenium plates currently being produced (for the period 1961-62). To get an overall picture, measurements were also made on plates produced in the period 1955-60 and the fact was taken into account that with the course of time the resistance in the throughflow direction increases on the one hand, and on the other, a barrier layer is formed on the rectifier. Methods for increasing the efficiency of selenium rectifiers are

Card 1/3

discussed. Measurements were made on selenium plates produced in the following Western countries: France (Westinghouse), Japan (Origin), German Federal Republic (AEG, Brandt, and Siemens), Austria (Schrack). As there is brisk development in this field in the socialist countries, the parameters of plates in the process of development and which are already in series production in the following countries are given: Czechoslovakia, the USSR, and the German Democratic Republic. In the case of all the plates, the following quantities were measured: 1) resistance in the current direction (i.e., the internal resistance of the selenium plate; 2) the threshold voltage; 3) the cutoff voltage; 4) the ohmic resistance in relation to voltage. In making measurements by the static method the normal circuit was used in determining the volt-ampere characteristic. The same measurements were made using the dynamic method, which is suitable for determination of the operating values of the electrical parameters of rectifying elements. It is pointed out that Czechoslovak-produced selenium plates have undergone a new method of production in which the process of crystallizing the selenium proceeds at the same time as diffusion of the activator from the counter-electrode to the selenium. The measurement results show: a) the value of the effective cutoff voltage spread over 0.6 mA/cm^2 fluctuates in all the selenium plates between 20 and 25 V, high current plates are made for an operating voltage of 25 V; b) the value of the in-

ternal resistance of the plate in the linear part of the volt-ampere characteristic in the throughflow direction is, in the case of plates produced by the best known manufacturers, less than 2 Ωcm^2; c) the threshold voltage attains values of from 0.45 to 0.7 V in all the plates (values of the threshold voltage determined by the dynamic method are in general greater than the values of threshold voltage determined by the static method); e) the density of the load current, assuming that natural cooling will carry off a maximum of 75 W of the power loss from 1 cm^2 of selenium plate surface, fluctuates between 50 and 70 mA/cm^2. In comparison with plates produced in 1955, the value of the load current has increased more than 100%. Current Czechoslovak production prescribes a load current of 25 mA/cm^2 and an operating temperature not higher than 65°C. Plates with a load current of up to 50 mA/cm^2 are manufactured for special purposes. In conclusion, it is emphasized that dynamic measurements are decisive for the operation of selenium plates as rectifiers, for they operate in the great majority of cases as rectifiers of alternating current. Orig. art. has: 3 tables, 1 formula, and 9 diagrams.

ASSOCIATION: [Sanderova, Frank] Elektrotechnicka fakulta CVUT (Department of Electrical Engineering, CVUT); [Kucera] Elektropristroj, n. p., vyzkum usmernovacu, Bechovice (Elektropristroj State Enterprise, rectifier research)

SERENKO, Igor' Aleksandrovich; LIFSHITS, Dmitriy Yefimovich; CHERENKOV, Nikolay Grigor'yevich; SHANDIN, S.N., red.; ISAYEVA, V.V., red. red.; POLOSINA, A.S., tekhn.red.

[Drilling slim and reduced diameter wells] Burenie skvazhin umen'shennykh i malykh diametrov. Moskva, Izd-vo "Nedra," 1964. 275 p. (MIRA 17:3)

MASICH, V.I.; PERCHIK, A.I.; SHANDIN, S.N.

Analyzing the organization of work done on the testing and sampling of wells of the Middle-Volga Council for the National Economy. Burenie no.8:23-25 '64. (MIRA 18:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut burovoy tekhniki; Moskovskiy ordena Trudovogo Krasnogo Znameni institut neftekhimicheskoy i gazovoy promyshlennosti im. akad. Gubkina i Gosudarstvennyy komitet po neftedobyvayushchey promyshlennosti.

II 10745-63 EWP(j)/EPF(c)/EWT(l)/EWT(m)/BDS--AFFTC/ASD--Pc-4/
Pr-4--GG/RM/WW
ACCESSION NR: AP3003509 S/0020/63/151/001/0087/0089

AUTHOR: Kravtsov, N. V.; Lazukin, V. N.; Shanditsev, V. A.

TITLE: Many-quantum transitions in EPR

SOURCE: AN SSSR. Doklady, v. 151, no. 1, 1963, 87-89

TOPIC TAGS: EPR, electron paramagnetic resonance, diphenylpicrylhydrazyl free radical, EPR satellites

ABSTRACT: The effect of weak modulating radio frequency magnetic field H_2 on the EPR spectrum of the diphenylpicrylhydrazyl free radical was investigated. Absorption at microwave field frequency ω_1 and absorption and emission at ω_1 and ω_2 (frequency of H_2) were recorded in the experiments. As the amplitude of H_2 was increased, an increase was observed in the number of satellite lines located symmetrically on both sides of the principal line. It was determined that the line intensity decreased with increasing order number of the satellite. The first satellite corresponds to absorption of quantum $\hbar\omega_1$ and emission of quantum $\hbar\omega_2$. The next satellite (in a weaker field) is due to absorption of quantum $\hbar\omega_1$ and emission of quantum $\hbar\omega_2$. An analogous effect occurs on the

Card 1/2

L 10745-63
ACCESSION NR: AP3003509

other side of the principal line. The authors note that this effect makes it possible to measure high-frequency radiation by recording lower-frequency radiation. The emission at ω_2 and at multiples of ω_2 can also be utilized in designing quantum mechanical amplifiers. The article was presented by Academician L. A. Artsimovich, 29 Jan 1963. Orig art. has: 4 figures.

ASSOCIATION: Moskovskiy gosudarstvenny*y universitet (Moscow State University)

SUBMITTED: 16Jan63 DATE ACQ: 30Jul63 ENCL: 00

SUB CODE: PH NO REF SOV: 002 OTHER: 006

Card 2/2

S

USSR/Human and Animal Morphology - Normal and Pathological. Circulatory System.

Abs Jour : Ref Zhur Biol., No 11, 1958, 50290

Inst : Vitebsk Medical Institute

Author : Rabkin, S.Ya. Shandler, A.Ye.

Title : Intra-osseous Venous Blood Supply of the Talocrural Joint of Fetuses and Infants.

Orig Pub : Sb. nauchn. rabot. Vitebski med. in-t, 1957, vyp. 8, 69-74

Abstract : On the basis of cleared-up specimens of the talocrural joint of 28 cadavers of fetuses, neonates and infants with injected blood vessels, it was shown that in fetuses of the second half of intra-uterine life there is a well-developed system of venous vessels in the articular terminals of the tibial, fibular astrabalar and calcaneal bones.

Card 1/2

SHANDLER, A. Ye., kand. med. nauk

Blood supply of ossification centers in the femur and tibia. Zdrav. Bel. 5 no.5:36-37 My '59. (MIRA 12:8)

1. Iz kafedry normal'noy anatomii (zaveduyushchiy - prof. Z. I. Ibragimova) Vitebskogo meditsinskogo instituta.
(EXTREMITIES(ANATOMY)--BLOOD SUPPLY)
(OSSIFICATION)

SHAPIRO, I.I.; MIKHAYLOV, D.V.; TSEYTS, I.E.; MOSINA, T.S., inzh.; PETRASHKO, A.S., inzh.; KASHINTSEVA, L.M., inzh.; GVOZDEVA, A.N., inzh.; SHVECHKOVA, A.S., tekhnik; SHANDLER, K.S., tekhnik; EL'KIND V.D., tekhn.red.

[General norms of cutting conditions and time used in the machinery industry for technical standardization of machining on milling machines; lot production] Obshchemashinostroitel'nye normativy rezhimov rezaniia i vremeni dlia tekhnicheskogo normirovaniia rabot na frezernykh stankakh; seriinoe proizvodstvo. Moskva, Gos. nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959. 269 p. (MIRA 13:1)

1. Moscow. Nauchno-issledovatel'skiy institut truda. TSentral'noye byuro promyshlennykh normativov po trudu. 2. Zaveduyushchiy otdelom mashinostroyeniya TSentral'nogo byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute truda (for Shapiro). 3. TSentral'noye byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute truda (for all except El'kind). (Milling machines)

SHAPIRO, I.I.; MIKHAYLOV, D.V.; TSEYTS, I.E.; MOSINA, T.S., inzh.; PETRASHKO, A.S., inzh.; KASHINTSEVA, L.M., inzh.; GVOZDEVA, A.N., inzh.; SHVECHKOVA, A.S., tekhnik; SHANDLER, K.S., tekhnik; MODEL', B.I., tekhn.red.

[General engineering norms for metal cutting operations and time for technological standardization on machining on milling machines; large-lot and mass production] Obshchemashinostroitel'nye normativy rezhimov rezaniia i vremeni dlia tekhnicheskogo normirovaniia rabot na frezernykh stankakh; krupnoseriinoe i massovoe proizvodstvo. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit.lit-ry, 1959. 306 p. (MIRA 12:12)

1. Moscow. Nauchno-issledovatel'skiy institut truda. TSentral'noye byuro promyshlennykh normativov po trudu. 2. Zaveduyushchiy otdelom mashinostroyeniya TSentral'nogo byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute truda (for Shapiro). 3. TSentral'noye byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute truda (for all except Model').
(Metal cutting)

SHAPIRO, I.I.; MIKHAYLOV, D.V., inzh.; MOSINA, T.S., inzh.; YEVLAMPIYEVA, V.M., red.; SHANDLER, K.S., inzh.; SOROKINA, G.Ye., tekhn.red.

[General engineering time norms for technical standardization of operations on lathes; small lot and piece production] Obshchemashinostroitel'nye normativy vremeni dlia tekhnicheskogo normirovaniia rabot na tokarnykh stankakh; melkoseriinoe i edinichnoe proizvodstvo. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 152 p. (MIRA 13:12)

1. Moscow. Nauchno-issledovatel'skiy institut truda. TSentral'noye byuro promyshlennykh normativov po trudu. 2. Zaveduyushchiy otdelom mashinostroyeniya TSentral'nogo byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute truda (for Shapiro). 3. TSentral'noye byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom institut truda (for Mikhaylov, Mosina, Yevlampiyeva, Shandler). (Turning)

RYBALTOVSKIY, Nikolay Yul'yevich, professor, doktor voyenno-morskikh nauk; SHANDOBYLOV, V.D., kapitan I ranga, retsenzent; YUSHCHENKO, A.P., redaktor; VOLCHOK, K.M., tekhnicheskiy redaktor.

[The magnetic compass] Magnitno-kompasnoe delo. Leningrad, Gos. izd-vo vodnogo transporta, 1954. 419 p. [Microfilm] (MLRA 8:1)
(Compass)

SHANDOR, Bakl

Our accomplishments, tasks, plans. Sov.profsoiuzy [8] no.3: 55-56 F '60. (MIRA 13:2)

1. Sekretar' TSentral'nogo Soveta vengerskikh profsoyuzov. (Hungary--Trade unions)

SHANDOR, E.

X-ray goniometer for examining malformed single crystals with undetermined symmetry. Kristallografiia 1 no.6:677-680 '56. (MLRA 10:5)

1.Fizicheskiy institut Budapeshtskogo universiteta.
(X-ray crystallography)

SHANDOR, E.; GADO, P.

Making small spheres from single crystals. Kristallografiia 1 no.6:729-732 '56. (MLRA 10:5)

1.Fizicheskiy institut Budapeshtskogo universiteta.
(Crystals)

ARSENI, K.; SHANDOR, G.; BOTEZ, M.I. (Bukharest)

Clinical and pathophysiological observations following extensive resections of the cerebral hemisphere. Vop.neirokhir. 23 no.5: 20-23 S-O '59. (MIRA 12:11)

1. Neyrokhirurgicheskaya klinika imeni G. Marinesku.
(BRAIN surg.)

MEGH: **Aleksandru** Mavru, Aleksandru] (Rumynskaya Narodnaya Respublika); SHANDOR, **Mozesh** (Rumynskaya Narodnaya Respublika)

New and rare species of fungi found in the Mogos peat bogs of the Rumanian People's Republic. Izv. AN Arm. SSR. Biol. nauki 18 no.3: 57-63 Mr '65. (MIRA 18:5)

BERIK, [illegible]; BELYAYEV, N.M.; [illegible], G.S.

Calculating the process of evacuation of a volume of gas. Inzh.-fiz. zhur. 7 no.9:25-29 S '64. (MIRA 17:12)

1. Gosudarstvennyy universitet im. 300-letiya vossoyedineniya Ukrainy s Rossiyey, Dnepropetrovsk.

L 05771-66 EWT(m)/EWT(1)

ACC NR: AT6025827 (N) SOURCE CODE: UR/3207/65/000/001/0003/0007

60
B+1

AUTHOR: Belik, N. P.; Belyayev, N. M.; Shandorov, G. S.

ORG: Dnepropetrovsk University (Dnepropetrovskiy universitet)

TITLE: Calculating the process of evacuating the gas from a container through an opening of variable cross section

SOURCE: Gidroaeromekhanika (Hydroaeromechanics), no. 1, Kharkov, Izd-vo Khar'kovskogo univ., 1965, 3-7

TOPIC TAGS: gas flow, thermodynamic process, isothermal flow, adiabatic process

ABSTRACT: The authors consider escape of gas from a reservoir of constant volume through a nozzle with a critical cross sectional area which varies in time assuming critical pressure drop in the container and in the atmosphere into which the gas is escaping. A method is developed for calculating this type of gas evacuation based on the use of thermodynamic equations for bodies of variable mass assuming that the temperature of the inner surface of the container is constant and that heat transfer from this surface to the gas takes place through free convection. General analytic formulas are derived for the thermodynamic process and the specific weight of the gas in the container and it is shown that expressions derived by other authors for adiabatic and isothermal processes are special cases of these formulas. Orig. art. has: 25 formulas.

SUB CODE: 20/ SUBM DATE: None/ ORIG. REF: 008

Card 1/1

AUTHOR : USSR.
CATEGORY : Zoological Parasitology. Parasitic Worms. G
General Problems.
ABS. JOUR. : RZhBiol., No. 20,1958. No. 92595.

AUTHOR : Shandor, K.
INST. :
TITLE : Principles of the Systematic Struggle Against Fasciolasis in Hungary.

ORIG. PUB. : Mezhdunar. s.-kh. zh., 1957, No.2, 79-84.

ABSTRACT : No abstract.

CARD: 1/1

GINTOVT, V.Ye.; SOLONINA, M.L.; SHANDOR, Kh.; LEBEDEV, B.I.; SVIRINA, Z.A.

Making use of heterosis in raising chicks for meat. Trudy Inst. gen. no.29:290-294 '62. (MIRA 16:7)

(Poultry breeding) (Heterosis)

USSR/Cosmochemistry - Geochemistry. Hydrochemistry. D.

Abs Jour : Ref Zhur - Khimiya, No 9, 1957, 30367

Author : Kokh Shandor
Inst : Lvov Geological Society at the University
Title : Minerals of Hungarian Basalts

Orig Pub : Mineralog. sb. L'vovsk. geol. o-va pri un-te, 1956, No 10, 135-146

Abst : Description of minerals of Myocenic basalts and chemical analyses of the following: olivines, augites, oligoclase, phillipsites, natrolite. Noted is the occurence of Cr in dark olivines and of Ni in the light ones. Elemental composition of basalts: crystalline separation of magma -- O, Si, Mg, Fe, Al, Ca, Ti, Na, K, H, Mn, Ni, S, Cr, Cu; postmagmatic processes -- O, Si, Al, Ca, C, H, K, Na, Mg, Fe, P, Ti, F, Cl, S.

Card 1/1

20-114-3-15/60

AUTHORS: Khalanay, A., Shandor, Sh.

TITLE: Theorems of the Sturm Type for Self-Conjugated Systems of Differential Equations of Higher Order (Teoremy tipa Shturma dlya samosopryazhennykh sistem differentsial'nykh uravneniy vysshego poryadka)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 114, Nr 3, pp. 506-507 (USSR)

ABSTRACT: The present paper investigates the system $\sum_{i=0}^{n}(-1)^i \frac{d^i}{dt^i}(\theta_{n-i}\frac{d^i y}{dt^i}) = 0$, $\theta_0 > 0$; here θ_j denotes the steady symmetrical matrices of the order p and y denotes a p-dimensional vector. The points a and b are here described as combined if such a solution $y(t) \not\equiv 0$ of the above system exists that $y(a) = y'(a) = \ldots = y^{(n-1)}(a) = 0$, $y(b) = y'(b) = \ldots = y^{(n-1)}(b) = 0$ applies. The points a and b are described as conjugated, if they are combined in the sense given above and if, apart from the interval (a,b), no point combined with a exists. In conclusion the conception "system of conjugated

Card 1/3

Theorems of the Sturm Type for Self-Conjugated Systems of Differential Equations of Higher Order

points" is defined. The present paper now proves three general theorems: Theorem 1: All systems of conjugated points, which are not identical, may be separated, i.e. between two points of a system following each other, one and only one point of another system exists. Theorem 2: The system

$$\sum_{i=o}^{n}(-1)^i \frac{d^i}{dt^i}\left(\bar{\theta}_{n-i}\frac{d^i y}{dt^i}\right) = 0 \quad \text{is assumed.}$$

If $\bar{\theta}_{n-i} \geqslant \theta_{n-i}$ and $\bar{\tau} = \tau_o$ applies, $\bar{\tau}_k \geqslant \tau_k$, $\bar{\tau}_{-k} \leqslant \tau_{-k}$ results therefrom. If for a certain l $\bar{\theta}_{n-l} > \theta_{n-l}$ applies, then the inequalities are strictly valid. The third theorem deals with the system

$$\sum_{i=o}^{n}(-1)^i \frac{d^i}{dt^i}\left(\theta_{n-i}\frac{d^i y}{dt^i}\right) - \lambda\sum_{i=o}^{n-1}(-1)^i \frac{d^i}{dt^i}\left(p_i \frac{d^i y}{dt^i}\right) = 0.$$

These general theorems can be proved in two different ways. There are 6 references, 4 of which are Soviet.

Card 2/3

20-114-3-15/60

Theorems of the Sturm Type for Self-Conjugated Systems of Differential Equations of Higher Order

ASSOCIATION: Mathematical Institute of the Academy of the Rumanian People's Republic Bucharest (Matematicheskiy institut Akademii Rumynskoy Narodnoy Respubliki Bukharest)

PRESENTED: January 23, 1957, by A. N. Kolmogorov, Member of the Academy

SUBMITTED: August 14, 1956

Card 3/3

MENKES, B.; SHANDOR, S.; MIKLIA, K.; DELIANU, M.

Experimental studies on homo- or heterological cells introduced into the embryonic organism. I. Behavior of Ehrlich ascites tumor cells introduced into the circulation of chick embryos. Rev. sci. med. 7 no.1/2:59-62 '62.

(CARCINOMA EHRLICH TUMOR) (EMBRYO)

28921

S/056/61/041/004/004/019
B108/B102

3,2410

AUTHORS: Bozoki, G., Fen'vesh, E., Shandor, T., Balea, O., Batagui, M., Fridlender, Ye., Betev, B., Kavlakov, Sh., Mitrani, L.

TITLE: Absorption of nuclear-active cosmic-ray particles in air

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 41, no. 4(10), 1961, 1043-1045

TEXT: The absorption of the nuclear-active component of cosmic radiation in air was measured at various altitudes above sea level. Showers were recorded with a coincidence arrangement of counters installed in a lead block (Fig. 1). The muon background was measured in Budapest 8 m underground (17 m water equivalent) to secure the recording of sixfold-coincidences due to muons only. The sixfold coincidences were recorded by the pair-connected counters 5 and 7, and 6 and 8. This underground measurement, together with the other measurements at various altitudes, made it possible to obtain corrections for background to the coincidence measurements with nuclear-active cosmic-ray particles. Results:

Card 1/4

Absorption of nuclear-active cosmic-...

Place of measurement	Depth, g/cm^2	Coincidences per hour
Bucharest (80 m above sea level)	1009	1.00 ± 0.04
Budapest (410 m)	969	1.55 ± 0.04
Bushteni (950 m)	907	2.37 ± 0.04
Pik Stalina (2925 m)	703	13.67 ± 0.11

The absorption mean free path λ_a for nuclear-active particles in air was found to be $(119 \pm 1) g/cm^2$. From the frequency of coincidences, the authors estimated the particle mean energy to amount to 30 Bev. The authors thank Professor L. Yanoshi, Professor G. Nadzhakov, and Professor I. Auslender for their interest and advice, N. Akhababyan, I. Kh. Ionn,

Absorption of nuclear-active cosmic-...

Y. Kokh, G. Taler, K. Tsige'man, and Y. Shnirer for the installation of the experimental device, and E. Rupp for assistance in calculations. Mention is made of Sh. A. Azimov, V. F. Vishnevskiy, N. I. Khil'ko (DAN SSSR, 78, 231, 1951), and of K. P. Ryzhkova and L. I. Sarycheva (ZhETF, 28, 618, 1955). There are 2 figures, 1 table, and 8 references: 3 Soviet-bloc and 5 non-Soviet. The four references to English-language publications read as follows: I. Tinlot, Phys. Rev., 74, 1197, 1948; L. Hodson, Proc. Phys. Soc., A65, 702, 1952; E. P. George, A. Jason, Proc. Phys. Soc., A63, 1081, 1950; H. S. Bridge, R. H. Rediker, Phys. Rev., 88, 206, 1952.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut fiziki Vengerskogo Akademii nauk, Budapesht (Central Scientific Research Institute of Physics of the Hungarian Academy of Sciences, Budapest) (G. Bozoki, E. Fen'vesh, T. Shandor), Institut yadernoy fiziki v Bukhareste, Rumyniya (Institute of Nuclear Physics in Bucharest, Romania) (O. Balea, M. Batagui, Ye. Fridlender), Fizicheskiy institut s Atomnoy nauchno-eksperimental'noy bazoy v Sofii, Bolgariya (Institute of Physics With Atomic Scientific Test Base in Sofiya, Bulgaria) (B. Betev, Sh. Kavlakov, L. Mitrani).

SOV/70-4-2-29/36

AUTHORS: Krayshovski I. and Shandor, U.

TITLE: The Preparation of Thin Plates of Anthracene (Izgotovleniye tonkikh antratsenovykh plastinok)

PERIODICAL: Kristallografiya, 1959, Vol 4, Nr 2, p 260 (USSR)

ABSTRACT: Anthracene plates are grown from the gas phase. The apparatus described is used for working them to shape. A brass plate 5 mm thick is cut to the required crystal shape and about 10-20 holes of diameter 1 cm (sic. but should probably be 1 mm for a 4 cm diameter crystal plate as appears from the drawing). One side of the brass plate is covered by a brass cup connected to a filter pump. An anthracene plate is put on top of the brass and is held on by the difference in air pressure and can be worked to shape by machine. The accuracy is sufficient for making smaller plates for assembly into a larger mosaic (the device is simply a vacuum plate as used on printing presses).

Card 1/2

The Preparation of Thin Plates of Anthracene SOV/70-4-2-29/36

There is 1 figure.

ASSOCIATION: Budapesht, Institut meditsinskoy fiziki
(Budapest, Institute of Medical Physics)

SUBMITTED: November 5, 1958

Card 2/2

ACC NR: AP6017857 SOURCE CODE: UR/0069/66/028/003/0366/0372

AUTHOR: Dyarmaty, I.; Shandor, Ya.

ORG: Physical Chemistry Department, Polytechnic University, Budapest (Kafedra fizicheskoy khimii, Politekhnicheskiy universitet)

TITLE: Thermodynamics of electrokinetic phenomena. Part I

SOURCE: Kolloidnyy zhurnal, v. 28, no. 3, 1966, 366-372

TOPIC TAGS: irreversible process, irreversible thermodynamics, electroosmosis, electrophoresis, colloid chemistry

ABSTRACT: The purpose of the work was to study electrokinetic phenomena in quantitative form and to establish the reciprocal relations between these phenomena by means of Onsager's relations. The study is based on the thermodynamics of irreversible processes, developed earlier for continuous systems, and for this reason the definitions given for the electrokinetic phenomena (electroosmosis, electrophoresis, streaming potential, electrophoretic potential) pertain to a continuous system and are local. The theory developed is applicable to electrophoresis and the electrophoretic potential; in order to determine electroosmosis and the osmotic potential, it is necessary to integrate over the surface of the capillary. It is shown that the reciprocal relations between the electrokinetic phenomena are clearly interpreted by means of Onsager's

Card 1/2 UDC: 541.131

ACC NR: AP6017858 SOURCE CODE: UR/0069/66/028/003/0373/0379

AUTHOR: Dyarmaty, I.; Shandor, Ya.

ORG: Physical Chemistry Department, Polytechnic University, Budapest (Kafedra fizicheskoy khimii, Politekhnicheskiy universitet)

TITLE: Thermodynamics of electrokinetic phenomena. Part 2.

SOURCE: Kolloidnyy zhurnal, v. 28, no. 3, 1966, 373-379

TOPIC TAGS: irreversible process, irreversible thermodynamics, electrophoresis, colloid chemistry

ABSTRACT: Having derived the fundamental equations of thermodynamics of irreversible processes for electrokinetic phenomena in their previous article (Kolloidn. Zh. 28, 366, 1966), the authors make use of these equations in a local determination of these phenomena and in a discussion of the reciprocal relations of the latter. The theory is then applied to electrophoresis and to the precipitation potential of colloidal particles. In the authors' view, the essence of electrokinetic phenomena does not consist in the manner in which the particles receive the charge, but in the interaction of the flow of matter with the flow of electricity. The manner in which electrophoretic mobilities are related to Onsager's L''_{21} coefficients is demonstrated. An equation is derived for the precipitation potential of colloidal particles per unit force of a gravitational or centrifugal field:

UDC: 541.131

Card 1/2

L 37008-66

ACC NR: AP6017858

$$\left(\frac{E}{F}\right)_{t=0} = -\frac{\rho_1 U_e}{L}\left(1-\frac{v_1}{v_4}\right).$$

Orig. art. has: 38 formulas.

SUB CODE: 20,07/ SUBM DATE: 02Jul64

Card 2/2

ACC NR: AR6025704 SOURCE CODE: UR/0196/66/000/004/G004/G005

AUTHOR: Belik, N. P.; Belyayev, N. M.; Shandorov, G. S.

TITLE: Calculating the emptying of a gas tank through a variable-cross-section port

SOURCE: Ref. zh. Elektrotekhnika i energetika, Abs. 4G34

REF SOURCE: Gidroaeromekhanika. Resp. mezhved. nauchno-tekhn. sb., vyp. 1, 1965, 3-7

TOPIC TAGS: gas flow, gas dynamics

ABSTRACT: A method is set forth for calculating the process of gas discharge from a constant-volume tank through a port whose cross-section varies with time; it is assumed that the discharge takes place at a supercritical pressure drop. The gas parameters in the tank due to heat exchange vary with a variable exponent of the polytrope. The method is developed on the basis of thermodynamic equations for variable-mass bodies under the assumption that the heat is transferred from surface to gas by free convection. It is shown that the process of gas tank emptying with an allowance for heat exchange can be calculated without determining the average exponent of the polytrope. Bibliography of 8 titles. Yu. Lashkov [Translation of abstract]

SUB CODE: 13, 20

Card 1/1 UDC: 536.7

L 15045-65 EWT(l)/EPF(c)/EPF(n)-2/EPR/T/EPA(bb)-2/EWA(l) Pr-4/Ps-4/Pu-4
AEDC(a)/AFMDC WW
ACCESSION NR: AP5001636 S/0170/64/000/009/0025/0029

AUTHOR: Belik, N. P.; Belyayev, N. M.; Shandorov, G. S.

TITLE: Computing the process of evacuation of a gas volume

SOURCE: Inzhenerno-fizicheskiy zhurnal, no. 9, 1964, 25-29

TOPIC TAGS: convective heat transfer, thermodynamic equation, gas volume, gas evacuation

Abstract: The method given is based on the use of the equations of thermodynamics for bodies of variable mass. It is assumed that the temperature of the inside surface of the volume is constant, and that the heat transfer from this surface to the gas is by free convection. It is found that, for some parameters of the evacuation process, the equations are reduced to expressions for adiabatic and isothermal processes. Experimentally obtained data agree satisfactorily with the calculated results. Orig. art. has 1 figure and 22 equations.

ASSOCIATION: Gosudarstvennyy universitet im. 300-letiya vossoyedineniya Ukrainy s Rossiyey, Dnepropetrovsk (Dnepropetrovsk State University)

Card 1/2

L 15045-65
ACCESSION NR: AP5001636

SUBMITTED: 15Apr64 ENCL: 00 SUB CODE: TD, ME

NO REF SOV: 007 OTHER: 000 JPRS

Card 2/2

ACC NR: AP7001424 (A) SOURCE CODE: UR/0413/66/000/021/0141/0141

INVENTORS: Saksaganskiy, T. A.; Shandorov, G. S.; Tokar', I. F.; Stipura, A. P.; Shipitsyn, V. M.; Zel'dina, T. S.; Yurchenko, N. P.

ORG: none

TITLE: A method of testing hollow products for hermetic seal and for strength. Class 42, 188094 [announced by All-Union Scientific Research, Construction, and Engineering Institute of the Pipe Industry (Vsesoyuznyy nauchno-issledovatel'skiy i konstruktorsko-tekhnologicheskiy institut trubnoy promyshlennosti)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 21, 1966, 141

TOPIC TAGS: liquid gas container, liquid nitrogen, hermetic seal, pipe, static test, test method

ABSTRACT: This Author Certificate presents a method of testing hollow products for hermetic seal and for strength. The method involves filling a hollow product with water and connecting it to a working cylinder in which the necessary pressure is produced. To create high testing pressures, liquid gas, such as nitrogen, is introduced into the cylinder. This gas, while vaporizing, creates the necessary testing pressure. The intensity of this pressure depends on the amount of the introduced gas and on the rate of its vaporization. The working cylinder may be partly filled with water which forms an ice layer when some of the liquid gas is introduced. A

Card 1/2 UDC: 620.165.29:620.178

ACC NR: AP7001424

measured amount of liquid gas is then poured onto the ice layer. To create a testing pressure higher than 800 kg/cm^2, the working cylinder may be fully filled with liquid gas and then chilled by being submerged in a bath of the same liquid gas.

SUB CODE: 13/ SUBM DATE: 02Jul65

Card 2/2

BELYAYEV, N.M.; SHANDOROV, G.S.

Determining the residual of liquids on internal walls and elements of emptied reservoirs. Izv.vys.ucheb.zav.; av.tekh. 6 no.3: 118-121 '63. (MIRA 16:10)

SANDOROV, G.S.

PA - 2180

AUTHOR ŠANDOROV, G.S.
TITLE On the Outflow a Canal into an Immobile and into a Mobile Medium (Russian).
PERIODICAL Zhurnal Tekhn.Fiz., 1957, Vol 27, Nr 1, pp 156-179 (U.S.S.R.)
Received 2/1957 Reviewed 4/1957

ABSTRACT The present work gives the results of the experimental investigation of such an outflow and the solution of the plane problem of outflow into an immobile medium improved by the MISES-method. The work is divided into the following sections: The outflow of a perfect incompressable liquid into an immobile medium of the same density, experimental investigation of the outflow of air from a canal.

Conclusions. It was ascertained theoretically that the outflow of a perfect incompressable liquid through outlets in the wall of the canal into an immobile medium of the same density is determined by two parameters, by the ratio between overpressure and the pressure of the velocity of the undisturbed current in the canal $\Delta p/q_a$ (EULER-criterium) and by the relative size a/H of the outlet. The dependences of the outflow coefficient μ computed and of the determining parameters agree satisfactorily with experimental data.

In the case of the examination of the outflow of air from a canal through outlets in the wall into a current, the following was observed. In this case the EULER-criterium which is computed as the ratio between overpressure in the canal and the pressure of velocity in the undisturbed current ($\Delta p/q_1$) proves to be an additional determining parameter. The influence of the exhaust flow of the outflow-coefficient is little in the

Card 1/2

PA - 2180

On the Outflow a Canal into an Immobile and into a Mobile Medium.

L 02524-67 EWT(1)/EWP(m) WW

ACC NR: AT6020969 SOURCE CODE: UR/3207/65/000/002/0027/0032

AUTHOR: Belyayev, N. M.; Shandorov, G. S. 54

ORG: Dnepropetrovsk University (Dnepropetrovskiy universitet) B+1

TITLE: The formation of funnels without rotation in the discharge of a fluid through bottom openings

SOURCE: Gidroaeromekhanika, no. 2, 1965, 27-32

TOPIC TAGS: fluid flow, fluid dynamics, VORTEX FLOW

ABSTRACT: The following empirical relationship has been previously proposed in the literature:

$$\frac{H_{cr}}{d} = 0{,}263\left(\frac{W}{d}\right)^{0{,}545}, \qquad (1)$$

where H_{cr} is the level of water at which the funnel in the discharge pipe is ruptured; d is the diameter of the discharge pipe; W is the average flow rate in the discharge pipe. Experimental determinations were made in an apparatus consisting of a transparent cylindrical reservoir with a diameter of 250 mm and a height of 600 mm. The water was allowed to flow out through an opening in the bottom of the reservoir 42 mm in diameter and through a discharge pipe 2 meters long. Two series

Card 1/2

L 02524-67

ACC NR: AT6020969

of experiments were made, one with water and one with glycerin. Results are shown in graphic form. Based on the experimental data the following results were achieved: 1) a relationship was obtained for the dimensionless height H_{cr}/d at which the funnel is ruptured; 2) the effect of viscosity on the value of H_{cr}/d was established at small values of the Reynolds number ($Re < 700$); a qualitative determination was made of the effect of viscosity on the form of the free surface and the volume of a funnel without rotation in the discharge of a fluid. Orig. art. has: 7 formulas and 6 figures.

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 003

Card 2/2 egh

ACC NR: AP6017833 SOURCE CODE: UR/0147/66/000/002/0100/0104

AUTHOR: Shandorov, G. S.

ORG: none

TITLE: Calculation of the axis of a jet in a deflecting stream

SOURCE: IVUZ. Aviatsionnaya tekhnika, no. 2, 1966, 100-104

TOPIC TAGS: turbulent jet, aerodynamic force, centrifugal force, parameter, jet flow, equilibrium flow

ABSTRACT: The problem of the deflection of a jet is approached on the basis of an examination of the forces acting on elementary segments of the jet. An element $d\ell$ (see Fig. 1) at a certain distance from the orifice of the jet in the plane xoz is taken. The condition of radial equilibrium of element $d\ell$

$$dN = dQ,$$

where

$$dN = C_x \frac{\rho_1 w_1^2}{2} \sin^2 \alpha d l d, \quad dQ = \frac{\rho w^2}{R} \frac{\pi d^2}{4} dl$$

are the aerodynamic and centrifugal forces respectively. A graph of the pressure distribution is given (see Fig. 2). It is found that, when the ratio of the velocity heads q_2/q_1 changes, there is considerable deformation of the pressure curve about the

Card 1/3 UDC: 533.17

jet. The calculated data are in satisfactory agreement with the experimental.

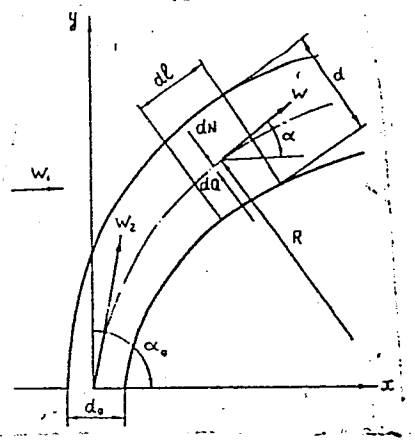

Fig. 1. Calculation diagram of jet in deflecting stream.

L [illegible]

ACC NR: AP6017833

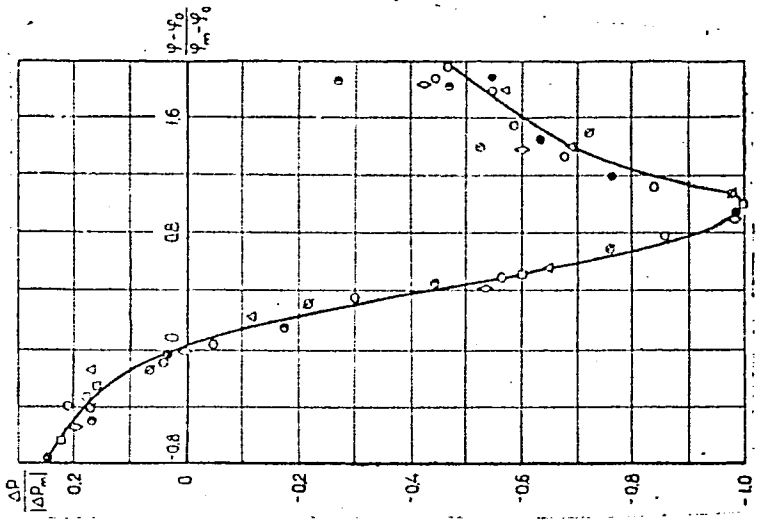

Fig. 2. Pressure distribution about initial cross section of jet in dimensionless coordinates: $q_2/q_1 = 15$ ○ 10 ⊘ 5 △ 3,75 □ 2,5 ● 2,0 ◇ 1,5 ◐.

Orig. art. has: 7 formulas, 3 graphs, and 1 diagram.

SUB CODE: 20/ SUBM DATE: 08Dec64/ ORIG REF: 003

Card 3/3

STEPANOV, K.D., vrach; SHANDOVA, L.I., meditsinskaya sestra.

Tat'iana Semenovna Bochkareva. Med.sestra 17 no.3:46-47 Mr '58.
(MIRA 11:4)

1. Iz Aktashskoy rayonnoy bol'nitsy Tatarskoy ASSR.
(BOCHKAREVA, TAT'IANA SEMENOVNA)

SHANDRA, T. YA., Engr Oct 50

USSR/Metals - Welding

"One-Sided Automatic Welding of Low-Carbon Steel Up to 16 Millimeters Thick," Engineers N. A. Fedorov, A. I. Kugin, T. Ya. Shandra

"Avtogen Delo" No 10, pp 17-20

Suggests one-sided welding under flux as most economical method, not requiring preliminary preparation of edges. Describes development of method for welding 900-1,032 mm diameter boilers made of steel 13-16 mm thick and construction of flux-supplying devices for straight and circular joints. Mechanical characteristics are no lower than those of joints welded from both sides.

PA 16/T85

[redacted]

SHANDRENKO, G. I.

Russia (1923- U.S.S.R.)

Time norms for the processing of scrap iron; blasting, pile hammering, flame and shear cutting, fagoting, crushing, and briquetting shavings Khar'kov, Gos. nauchno-tekhn

1. Scrap metal industry.
2. Time study. I. Shandrenko, G.I. II. Ziomenko, A. I.

USSR/Engineering Jan 1948
Tools, Machine
Efficiency, Industrial

"Technical Normalization of Machine Tool Work,"
G. I. Shandrenko, Engr, OpgCherMet, 3½ pp

"Stal'" No 1

To increase productivity of mechanized plants in metallurgical works, it is important to improve organization for preparation of production and labor, as well as improve organization for technical normalization and adopt methods of progressive processing norms.

41T19

SHANDRENKO, G.I., starshiy nauchnyy sotrudnik; ZNOMENDO, A.I., nauchnyy sotrudnik; PRIYMAK, I.A., redaktor; ANDREYEV, S.P., tekhnicheskiy redaktor.

[Time norms for toolmaking] Normativy vremeni na instrumental'nye raboty. Khar'kov, Gos. nauchno-tekh. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1951. 126 p. (MLRA 8:6)

1. Russia (1923- U.S.S.R.) Ministerstvo chernoy metallurgii. (Tools)

SHANDRENKO,G.I.; MURTISHCHEV,M.A.; PRIYMAK,I.A., redaktor; ANDREYEV, S.P., tekhnicheskiy redaktor; VAYNSHTEYN,Ye.B., tekhnicheskiy redaktor

[Time norms for layout, fitting and assembly work] Normativy vremeni na razmetochnye, slesarnye i sborochnye raboty. Khar'kov, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1951. 273 p. (MLRA 9:3)

1. Russia (1923- U.S.S.R.) Nauchno-issledovatel'skoye byuro organizatsii proizvodstva chernoy metallurgii
(Machine-shop practice)

SHANDRENKO, G.I., starshiy, nauchnyy sotrudnik; DEMESHKO, L.G., nauchnyy sotrudnik.

[Time norms for repair work on crane equipment] Normativy vremeni na remont kranovogo oborudovaniia. [Sostavili G.I.Shandrenko i L.G.Demeshko] Khar'kov, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1953- v.1. Part 1. Regular electric bridge cranes with lifting capacity of 5, 10, and 15 t. (MLRA 6:7)

(Cranes, derricks, etc.)

SHANDRENKO, G.I., starshiy nauchnyy sotrudnik; ZIOMENKO, A.I., starshiy nauchnyy sotrudnik; TIMOSHPOL'SKIY, M., otvetstvennyy redaktor; SINYAVSKAYA, Ye.K., vedushchiy redaktor; ANDREYEV, S.S., tekhnicheskiy redaktor.

[Time norms for the processing of scrap iron; blasting, pile hammering, flame and spear cutting, fagoting, crushing, and briquetting shavings] Normativy vremeni na razdelku doma chernykh metallov; podryvnoi sposob, koprovaia razdelka, ognevaia i noshnichnaia rezka, paketirovanie, droblenie i briketirovanie struzhki. Khar'kov, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1954. 133 p. (MLRA 8:1)

1. Russia (1923- U.S.S.R.) Ministerstvo chernoy metallurgii. (Scrap metal industry) (Time study)

130-9-19/21

AUTHORS: Shandrenko, G.I. and Ponomarev, Yu.M.

TITLE: Standardization of Parts made of Type Г13Л Steels. (Unifikatsiya detaley iz stali Г13Л)

PERIODICAL: Metallurg, 1957, Nr 9, pp.37-39 (USSR)

ABSTRACT: Type Г13Л manganese steel is used for casting part of equipment for impact-abrasive service conditions, e.g., ore chutes. The steel is difficult to machine and the authors indicate the advantages of standardisation, giving as examples the existing ore-chute armouring at the "Azovstal'" works (27 types of plate) and one made up of only five types, with possible further reduction. As a further example, the existing and suggested construction of the blast-furnace skip at the imeni Voroshilov works are given. There are 4 figures.

ASSOCIATION: VNIIOchermet.

AVAILABLE: Library of Congress.

Card 1/1

ANTSYSHKIN, G.V.; SHANDRENKO, G.I.

Organization of repair work in metallurgical plants. Metallurg 3 no.2:1-2 F '58. (MIRA 11:2)

1. Zamestitel' glavnogo mekhanika Zlatoustovskogo metallurgicheskogo zavoda.

(Metallurgical plants—Equipment and supplies)

SHANDRENKO, G.I.

AUTHOR: Shandrenko, G. I. 133-58-3-29/29

TITLE: Specialisation in the Production of Crane Wheels and an Increase in Their Durability (Spetsializatsiya proizvodstva i povysheniye stoykosti kranovykh koles)

PERIODICAL: Stal', 1958, Nr 3, pp 285 - 287 (USSR)

ABSTRACT: The service life of travelling bridge crane wheels produced by various works and methods of their production are compared. In view of a low wear-resistance of these wheels, specialisation in the production is recommended. A preliminary standardisation of their dimensions, materials, methods of preparation of semis and thermal treatment should be carried out.
There are 3 tables.

ASSOCIATION: VNIIOChERMET

AVAILABLE: Library of Congress

Card 1/1

68-58-5-13/25

AUTHORS: Shandrenko, G.I., Gridin, A.D. and Pashkov, G.A.

TITLE: Standardisation of Discs for Grizzly Screens and Specialisation of their Production (**Unifikatsiya** diskov koksovykh grokhotov i spetsialisatsiya proizvodstva ikh)

PERIODICAL: Koks i Khimiya, 1958, Nr 5, pp 45 - 49 (USSR).

ABSTRACT: The variety of shapes and dimensions of discs for grizzly screens is discussed. The necessity for standardisation of their shape, dimensions and methods of production is stressed. It is considered that the manufacture of discs should be centralised. There are 5 tables and 6 figures.

ASSOCIATION: VNIIOChERMET

Card 1/1

AUTHOR: Shandrenko, G.I. SOV/130-58-8-4/18

TITLE: Production of Ingot Moulds from Liquid Blast-furnace Pig Iron (O proizvodstve izlozhnits iz zhidkogo domennogo chuguna)

PERIODICAL: Metallurg, 1958, Nr 8, p 10, (USSR)

ABSTRACT: Commenting on P.V. Gubchevskiy's article (Metallurg, 1958, Nr 1) on ingot-mould production at the Krivorozhskiy metallurgicheskiy zavod (Krivoy Rog Metallurgical Works), the author suggests that, from the productivities achieved at the Edgar Thomson Works in the USA, the production there should be capable of a 2.5 - 3-fold increase with suitable reconstruction.

1. Molds--Production 2. Iron--Applications

Card 1/1

Sov/133/58-9-28/29

AUTHOR: Shandrenko, G. I.

TITLE: Specialization and Cooperation in Manufacturing Spare Parts and Renewable Equipment (Spetsializatsiya i kooperirovaniye proizvodstva zapasnykh chastey i smennogo oborudovaniya)

PERIODICAL: Stal', 1958, Nr 9, pp 859-860 (USSR)

ABSTRACT: As very often each metallurgical works manufacture for themselves the required parts and renewable equipment, often under primitive conditions, the problem of regional centralization of the production of such parts and equipment in works which then would be able to introduce mass production methods is discussed.

ASSOCIATION: VNIIOchermet.

Card 1/1

SHANDRENKO, G.I.

Specialization of production and increased durability of crane wheels. Stal' 18 no.3:285-287 Mr '58. (MIRA 11:3)

1. VNIIOChERMET.

(Sheet-metal work)

SOV/122-59-3-27/42

AUTHOR: Shandrenko, G.I., Engineer

TITLE: The Specialisation of the Manufacture of Blanks for Tool Holders (Spetsializatsiya proizvodstva zagotovok derzhavok dlya reztsov)

PERIODICAL: Vestnik Mashinostroyeniya, 1959, Nr 3, p 78 (USSR)

ABSTRACT: Referring to an article by L.M. Abramov and M.A. Targanskiy in "Vestnik Mashinostroyeniya", 1958, Nr 2, a different approach to the specialisation of tool manufacture is advocated. Instead of the centralised manufacture of forged blanks, rolled blanks should be produced in metallurgical plants.

Card 1/1

SOV/133-59-1-23/23

AUTHORS: Shandrenko, G.I. and Nikolayenko, N.A.

TITLE: Bandaging of Ingot Moulds (Bandazhirovaniye izlozhnits)

PERIODICAL: Stal', 1959, Nr 1, pp 94 - 96 (USSR)

ABSTRACT: The influence of reinforcing ingot moulds with bandages on their durability is discussed in the light of experience gained at various iron and steel works. It is concluded that the advantages of the application of bandages for reinforcing large ingot moulds are well established. Bandages should be cast from a high-carbon steel or from steels 40G, 50G or 60G; they should be placed only on the external layer of the moulds. Ingot moulds for sheet ingots should be also made with localised increases in the wall thickness in zones liable to overheating. The correctness of the shape and dimensions of localised increases in wall thickness should be checked experimentally. There are 6 figures and 2 references, 1 of which is Soviet and 1 a translation from English.

ASSOCIATIONS: VNIIOChERMET i Ukrainskiy institut metallov (Ukrainian Institute of Metals)

Cardl/1

USCOMM-DC-61003

SHANDRENKO, G.I.; PASHKOV, G.A.

Increasing the life of wire ropes for skip hoists. Metallurg 5 no.5:11-14 My '60. (MIRA 14:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut organizatsii proizvodstva i truda chernoy metallurgii.
(Blast furnaces--Equipment and supplies) (Wire rope)

SHANDRENKO, G.I.; KHITRIK, M.V.

Hardening parts for metallurgical equipment is an important potential of metal economy. Metallurg 5 no.6:36 Je '60. (MIRA 13:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut organizatsii proizvodstva i truda chernoy metallurgii.
(Metallurgical plants--Equipment and supplies)

SHANDRENKO, G.I., inzh.; PASHKOV, G.A., inzh.

Increasing the durability of steel ropes on load hoisting machines in metallurgical plants. Biul. TSIICHM no.3:26-32 '61. (MIRA 14:12)
(Metallurgical Plants--Equipment and supplies)
(Cranes, derricks, etc.)

SHANDRENKO, G.I.

Increasing labor productivity of repairmen. Metallurg 6 no.9: 36 S '61. (MIRA 14:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut organizatsii proizvodstva i truda chernoy metallurgii.
(Metallurgical plants--Maintenance and repair)

SHANDRENKO, G.I.

Progressive methods of carrying out repairs in enterprises of nonferrous metallurgy. TSvet. met. 36 no.9:91-92 S '63. (MIRA 16:10)

SHANDRENKO, G.I.; GRIDIN, A.D.; DROBYAZIN, V.N.

Centrifugal casting of large nonferrous alloy ingots. Lit. proizv. no.10:45 O '63. (MIRA 16:12)

SHANDRENKO, G.I.

Prolonging the life of parts and units of metallurgical equipment. Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.i tekh.inform. 17 no.1:13-15 '64. (MIRA 17:2)

SHANDRENKO, G.I.

Increasing the durability of metallurgical equipment parts and assemblies. Metallurg 9 no.4:42-43 Ap '63. (MIRA 17:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut organizatsii proizvodstva i truda chernoy metallurgii.

SHANDRENKO, G.I.

Using the separate unit assembly method in repairing metallurgical equipment. Met. i gornorud. prom. no.3: 62-63 My-Je '64. (MIRA 17:10)

SHANDRENKO, G.I., inzh.

Compulsory system of equipment repairs. Vest. mashinostr. 44 no.9:76-77 S '64. (MIRA 17:11)

SHANDRENKO, G. I., inzh.

Mechanization of repair work in metallurgical plants. Mekh.i avtom.proizv. 18 no. 5:27 My '64. (MIRA 17:5)

SHANDRENKO, G.I.

Modern methods of repairing in metallurgy. Metallurg 10 no.5:36-37 My '65. (MIRA 18:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut organizatsii proizvodstva i truda chernoy metallurgii.

VOROB'YEV, A.I.; SHANDRIKOV, M.N.

Making pins with iridium tips. Priborostroenie no.6:24-26 Je '57.
(MIRA 10:7)

(Iridium) (Instrument industry)

PAVLOV, Yu.I.; BEZRUK, V.I.; SHAMRAY, I.G.

Unit for information transmission. Avtom. i prib. no.2:61-67 Ap-Je '63. (MIRA 16:8)

1. Khar'kovskiy zavod kontrol'no-izmeritel'nykh priborov.

SHOYKHET, L.A., kand. tekhn. nauk, red.; SHANDRO, V.I., red.

[Automation of industrial processes in the coal and ore mining industry] Avtomatizatsiia proizvodstvennykh protsessov v ugol'noi i gornorudnoi promyshlennosti. Kiev, 1964. 191 p. (MIRA 18:6)

1. Kiev. Instytut avtomatyky.

SHANDROV, G.S.

Eliminating the gassing of a liquid by the nonsubmerged part of a turbulent jet. Inzh.-fiz. zhur. 7 no.12:83-84 D '64 (MIRA 18:2)

1. Gosudarstvennyy universitet, Dnepropetrovsk.

SHANDRU, N. [Sandru, N.] (Bucuresti)

Centered internal loads in elastic semispace with fixed boundaries. Bull math Rum 5 no.3/4:205-224 '61[publ. '64].

1. Submitted December 15, 1963.

SHANDURA, Z.A., inzh.

Adjustment of the PZ-153 long-distance electric protection system. Elek. sta. 31 no.9:79-80 S '60. (MIRA 14:10)
(Electric protection)

YAKOVLEVA, G.S.; SHANDURIN, S.V.

Virological examination of the air. Vop.virus. 6 no.2:236-237 Mr-Ap '61. (MIRA 14:6)

1. Kafedra mikrobiologii Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.
(VIRUSES) (AIR—MICROBIOLOGY)

YEGOROV, A.P., shofer; VOYTANIK, N.M., shofer; KOZINTSEV, D.K., shofer; POLULYAKH, V.Ya., shofer; KAMATSKIY, V.N., shofer; VARSHAVSKAYA, A.A., shofer; VATULIN, G.N., shofer; SHANDURSKIY, P.T., shofer; YEMEL'YANOV, G.A., shofer; VERBOV, A.G., shofer; DANILETS, P.P., shofer; BOGANCHENKO, V.A., shofer; PRUDNIKOV, A.F., shofer; V'YUNIKOV, S.I., shofer; SOLOVEY, I.N., shofer; MURASHKO, D.F., shofer

We prize our workers' honor. Avt. transp. 40 no.12:3-4 D '62. (MIRA 15:12)

1. Simferopol'skiy avtobusnyy park (for Yegorov, Voytanik). 2. Simferepol'skiy taksomotornyy park (for Murashko, Kozintsev). 2. Kerchenskiy avtobusno-taksomotornyy park (for Polulyakh). 4. Yevpatoriyskiy avtobusno-taksomotornyy park (for Kamatskiy). 5. Yaltinskiy taksomotornyy park (for Varshavskaya). 6. Feodosiyskiy taksomotornyy park (for Varshavskaya). 7. Sevastopol'skiy avtobusno-taksomotornyy park (for Yemel'yanov). 8. Simferopol'skiy gruzovoy avtopark (for Verbov). 9. 2-y Simferopol'skiy gruzovoy avtopark (for Verbov). 9. 2-y Simferopol'skiy gruzovoy avtopark (for Danilets). 10. Bakhchisarayskiy avtopark (for Boganchenko). 11. Sevastopol'skiy avtopark (for Prudnikov). 12. 1-y Simferopol'skiy gruzovoy avtopark (for V8Yunikov, Solovey).

AUTHORS: Logvinenko, N. V., Karpova, G. V., Skandyba, K. G., Shaposhnikov, D. P. SOV/20-121-3-37/47

TITLE: The Types of Terrigeneous Flysh in the Tauric Formation of the Crimea (O tipakh terrigennogo flisha v tavricheskoy formatsii Kryma)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 121, Nr 3, pp 531 - 534 (USSR)

ABSTRACT: The sediments of the tauric formations (Tavricheskaya formatsiya; they were formed in the Upper Triassic Lower Jurassic, Refs 3,1,4) are marked by flysh-type strata. The strata are 2-membered (Refs 1,2): The first member is formed by granular rocks: gravelites, sandstones with grains and aleurolites of varying sizes. The second element of the stratum, which is represented by carbonate rocks in the classical flysh formations, (Alps = Al'py, Caucasus = Kavkaz) is lacking in the tauric formation. Carbonate concretions and concretion intermediate layers are attached to the IIIrd element of the stratum. These, however, are not always present. The strata are 10-15 to 20-30 cm thick. Thinner or thicker strata are less frequent; a thickness of 200-250 cm is an exception. Several types occur among the

Card 1/3

2-membered ones: A) A complete stratum consisting of the following elements: gravelite, sandstone, aleurolite, argillit (Ia + Ib + Ic + III); it does not occur frequently; B) Usually a stratum consisting of Ib + Ic + III or C) Ib + III or D) Ic + III; this is the most widespread type. Type A is called normal flysh, type B is sandy or sandstone flysh, type C is called aleurolite-argillit flysh and type D--argillit flysh. Concretions and concretion intermediate layers frequently occur in flysh. In aleurolites traces of worms are visible. Apart from the above mentioned 4 flysh types we know 2 other types: normal flysh with thick (1,0 - 1,8 cm) medium and coarse-grained sandstones (belongs to type A) and focoidal flysh (to type C) with a mass development of mud eater traces. Additional strange flyshoid sediments occur in the tauric formation. They consist of argillit with big, loaf-shaped carbonate concretions and lense-shaped concretion intermediate layers. The rocks of the tauric formation show numerous types of flysh textures: hieroglyphs of different types, wave marks, a diagonal structure of the strata of maritime type, small folds caused by subaqueous land slides. Various types of hieroglyphs are mentioned. At the end of the

The Types of Terrigeneous Flysh in the Tauric Formation of the Crimea SOV/2o-121-3-37/47

paper the authors show the order of alternating of the flysh types (5 varieties). There are 1 figure and 4 references, 4 of which are Soviet.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet im.A.M.Gor'kogo (Khar'kov State University imeni A.M.Gor'kiy)

PRESENTED: March 31, 1958, by N.M.Strakhov, Member, Academy of Sciences, USSR

SUBMITTED: March 31, 1958

Card 3/3

3(8) SOV/20-124-4-52/67

AUTHORS: Logvinenko, N. V., Karpova, G. V., Shandyba, K. G., Shaposhnikov, D. P.

TITLE: On the Mineralogical-Petrographical Characterization of the Tauric Formation in Crimea (K mineralo-petrograficheskoy kharakteristike tavricheskoy formatsii Kryma)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 4, pp 911-914 (USSR)

ABSTRACT: This formation consists of terrigenous rocks: sandstones, "aleurolites" and argillites. Carbonate rocks are lacking, but carbonate contractions and intermediate strata are widespread. Most rare are gravelites. The individual kinds of rock are described. Sandstones contain feldspar (5-7 up to 10-15 %) and quartz, or quartz and glimmer (muscovite and biotite) as well as rock splinters (few). Potassium feldspar is rare, however, the albite, albite-oligoclase and oligoclase type are more frequent. Apart from rock-forming main minerals there occur also: zirconium, rutile, tourmaline, apatite, spinel and other accessories. Octahedrite-brookite and chlorite often develop after biotite (Table 1). With respect to texture, sandstones are combined by contact and contact-pore cement and, less frequently, by basal-pore cement. Cement is sometimes lacking, and the rock becomes quartzite-like. Both sandstones and

Card 1/4

On the Mineralogical-Petrographical Characterization of the Tauric Formation in Crimea

aleurolites contain pyrites. By weathering, hematite and brown iron hydroxides are produced from them. In the argillites, pyrite is finely dispersed. The results of thermal and radiographic analysis of argillites as well as the results of electronograms are given. Besides finely disperse silicates and coarsely crystalline admixtures, there are in argillites obviously also diagenetic and epigenetic minerals of the sulfide class (pyrites) and the carbonate class (calcite, rarely dolomite, usually carbonate of the magnesite-siderite series). A specific feature of rocks of the Tauric formation is their coloration: mostly dark, from dark almost to black. These shades have various causes and are bound to rock types. The coloration is due to both organic (coal substance) and mineral pigments (pyrites). A fine plant dendrite converted into coal occurs throughout the formation and is present in any rock type, i.e. in a very fine state in the lower part (visible in sandstones) and in coarse state in the upper part (some centimeters high). With respect to secondary transformations, terrigenous rocks have attained the stage of a depth epigenesis and early metagenesis (Ref 3). That is due to the position of the mass in the middle and peripheral part of geosynclinal. These rocks were sedimented in

On the Mineralogical-Petrographical Characterization of the Tauric Formation in Crimea

the sea within the range of a shelf as well as on the corresponding slope with unstable hydrodynamic conditions, where suspended terrigenous material and also organic substance were carried. The decomposition of the latter in mud led to the formation of H_2S-hearths, which possibly extended also to the layer near the bottom. This favored neither organic life nor the deposition of carbonates. Therefore, fauna is probably lacking in most sediments of the Tauric formation. The formation is a terrigenous, carbonateless flysch which was produced by erosion of Paleozoic, primarily of Carboniferous sediments of the adjacent Northern regions. It is possible that another cordillera consisting of Paleozoic formations exists in the South in the place of the recent Black Sea.-There are 1 table and 5 Soviet references.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet im. A. M. Gor'kogo (Khar'kov State University imeni A. M. Gor'kiy)

LOGVINENKO, N.V.; KARPOVA, G.V.; SHANDYBA, K.G.; SHAPOSHNIKOV, D.P.

Stratigraphic subdivision of Tauric strata in the Crimea. Dokl.AN SSSR 137 no.5:1188-1191 Ap '61. (MIRA 14:4)

1. Khar'kovskiy gosudarstvennyy universitet im. A.M.Gor'koga. Predstavleno akademikom N.M.Strakhovym.
(Crimea--Geology, Stratigraphic)

SHANDYBA, V., inzh., starshiy prepodavatel'

The pump cooling system has been improved. Pozh.delo 5 no.12:28 D '59. (MIRA 13:4)

1. KhPTU.
(Pumping machinery--Cooling)
(Fire departments--Equipment and supplies)

SHANDYBA, V., inzh.

Shortcomings of manual ladders. Pozh.delo 7 no.9:26 S '61.
(MIRA 14:11)
(Fire departments--Equipment and supplies)

L 15708-63 EPR/EWP(j)/EPF(c)/EWP(q)/EWT(m)/BDS AFFTC/ASD Ps-4/Pc-4/
Pr-4 RM/WH/WW/K/JD

ACCESSION NR: AP3006544 S/0191/63/000/009/0055/0057

AUTHOR: Shandybа, V. A.

TITLE: Adherence of polycaprolactam films to metals

SOURCE: Plasticheskiye massy*, no. 9, 1963, 55-57

TOPIC TAGS: polycaprolactam, nylon, nylon-6, filler, aluminum powder, chromic oxide, aluminum, aluminum powder filler, chromic oxide filler, cast iron, bronze, aluminum alloy, fusion-bond finish, adhesion, adhesive bond strength, bonding, coating, polycaprolactam coating, nylon coating

ABSTRACT: A study has been made of the effects of the type and amount of filler, type of basis metal, metal-surface temperature, and coating thickness on the adherence of polycaprolactam fusion-bond finish to various metals. Sand-blasted and degreased cast iron, steel, bronze, aluminum, or aluminum-alloy specimens and talcum, graphite, or aluminum powder fillers were used. The ends of pre-heated cylindrical (diam., 10 mm) or square (10 x 10 mm) specimens were coated by dipping in a bed of fluidized dry coating powders of polycaprolactam and filler in a special chamber in a nitrogen atmosphere. For adhesion tests, two specimens were bonded together immediately after coating by applying a force of

Card 1/2

L 15708-63

ACCESSION NR: AP3006544

16 3

4—6 kg. The highest adhesive-bond strength (ABS) was exhibited by coatings containing up to 15% aluminum powder and chromic oxide on aluminum, aluminum alloys, and steel. For example, the ABS between aluminum-powder filled polycaprolactam and metals was as follows (in kg/cm^2): AMG-3 aluminum [3.2—3.8% Mg], 590; AL-5 [nearest US equivalent, 355] aluminum, 420; steel 45 [low-carbon steel], 325; cast iron, 230. The same figures for nonfilled polycaprolactam were 225, 190, 180, and 140. The choice of the optimum metal-surface temperature depended on the desired coating thickness. The best results were obtained at 260—300C. Below 260C, adhesion is inadequate, and above 300C, the coating loses its properties owing to structural changes. With increasing coating thickness from 100 to 400-μ ABS dropped from ~ 540 to ~ 410 kg/cm^2. In practice, coating thickness must be determined empirically, depending on end use. This research was done at the Khar'kovskiy avtomobil'no-dorozhnyy institut (Khar'kov Automobile and Highway Institute). Orig. art. has: 5 figures.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 30Sep63 ENCL: 00

SUB CODE: CH, MA NO REF SOV: 004 OTHER: 004

Card 2/2

ACC NR: AT6016342 (A) SOURCE CODE: UR/3183/65/000/001/0060/0064

AUTHOR: Shandyba, V. A. (Engineer)

ORG: None

TITLE: Effect which internal nonhomogeneity in the microstructure of polymer coatings has on their ability to adhere to a base

SOURCE: Kharkov. Avtomobil'no-dorozhnyy institut. Avtomobil'nyy transport; mezhvedomstvennyy respublikanskiy nauchno-tekhnicheskiy sbornik, no. 1, 1965, 60-64

TOPIC TAGS: polymer structure, plastic coating, adhesion, stress distribution

ABSTRACT: The author reviews the fundamentals of the adsorption, electric and diffusion theories for explaining the physical and chemical mechanisms responsible for the phenomenon of adhesion and considers the effect which internal nonhomogeniety in the microstructure of polymer coatings has on their ability to adhere to a base, which is an important property in production of high-strength polymer coatings. It is shown that the structure of a polymer coating consists of at least three layers, the lower layer having two-dimensional orientation and the upper layer showing maximum packing density of the polymer molecules. A polymer coating applied to a base shows a reduction in volume as it congeals. The thickness of the coating during this period may change freely, while the width and length are fixed due to adhesion between the coat-

Card 1/2